Featured Fishes: Selected Fishes of the California Nearshore Fishery Management Plan

This is the final installment in a series of three articles in the *Marine Management News* that provides information on biological characteristics of the species selected for management under the Nearshore Fishery Management Plan (NFMP), as well as an insight on the importance of each species to sport and commercial fisheries. In this issue, we focus on the six species of fish included in the NFMP that are not rockfish.

...by Ed Roberts, Marine Biologist

Cabezon were primarily taken by recreational anglers up until the early 1990's. Since then, commercial effort has increased with the 1999 commercial landings six times higher than sport landings. Samples from the Morro Bay area taken from 1995 to 1998 suggest a large portion of fish landed during that time were sexually immature.

California scorpionfish can make up a substantial portion of the recreational catch, and

Names	Range	Keys to Identification	Maximum Age and Length	Growth and Maturity
Cabezon (Scorpaenichthys marmoratus) Marbled sculpin	Sitka, AK to central Baja CA. Frequently found from WA to southern CA.	Can be brown, red or green with darker mottling. Scaleless. Possess a flap of skin on the snout and over each eye.	Max. recorded age: 17 yrs. for males, 16 yrs. for females.	Larvae are planktonic (ocean drifters) for 3-4 mo. Males first reach maturity at 13.5 in., approx. 2-3 yrs. old, while females first reach maturity at 17.5 in., approx. 3-5 yrs. old. A 24 in. fish is approx 9 yrs. old.
California scorpionfish (Scorpaena guttata) Sculpin, rattlesnake	Santa Cruz, CA south to Baja CA and into the Gulf of CA. Common south of Santa Barbara, CA.	Dorsal, pelvic and anal spines are venomous. Can be red to brown with dark spots over the entire body.	Max. recorded age: 21 yrs. Max. recorded length:17 in.	Over half are sexually mature by 7 in., approx. 2 yrs old. A 10 in. fish is approx. 6 yrs. old. After age 4 females grow faster and reach a larger size.
California sheephead (Semicossyphus pulcher) Goat, billygoat, sheepie (male shown)	Monterey Bay, CA south into the Gulf of CA Common south of Point Conception, CA.	Males are black and red with a large forehead, females pinkish; both sexes have a white lower jaw and large canine-like teeth.	Max. recorded age: 50 yrs. for males, 30 yrs. for females. Max. recorded length: 36 in. for males.	Larvae are planktonic (ocean drifters) for 1-3 mo. "Protogynous hermaphrodites", beginning life as female and changing to male due to various conditions. Females reach sexual maturity at 3-6 yrs.
Kelp greenling (Hexagrammos decagrammus) Sea trout (male shown)	Aleutian Islands, AK to La Jolla, CA. Common from AK to central CA.	Males are light gray to brown with irregular blue spots; females with smaller dark spots. Possess 5 lateral lines; inside of mouth yellowish.	Max. recorded	Approx. half of all fish are sexually mature by age 4, or 11.6 in.
Monkeyface prickleback (Cebidichthys violaceus) Monkeyface eel	Southern OR to San Quintin Bay, Baja CA. Common south to Point Conception, CA.	Elongated and eel- like; light brown to black with 2 dark stripes below the eye.	Max. recorded age: 18 yrs. Max. recorded length: 30 in.	Approx. half of all fish are sexually mature by age 5, or 15.4 in.
Rock greenling (Hexagrammos lagocephalus) Sea trout	Bering Sea south to Point Conception, CA; also in the western Pacific, south to Japan. Uncommon south of San Francisco.	Reddish-brown with darker mottling, often with red blotches on the sides. Inside of mouth bluish. Skin flap over eye.	Max. recorded age: 8 yrs. for males, 11 yrs. for females. Max. recorded length: 24 in.	No information available from CA; in the western Pacific, approx. half of all fish are sexually mature by age 3-4, or 11.4-13.8 in.

are increasingly important in the commercial live fish fishery. The scorpionfish does not suffer from depressurization trauma as severely as its rockfish cousins.

California sheephead abundances may fluctuate with cyclic oceanic conditions such as El Niño events. They are a prized sport fish, and command a high price at live fish markets.

Kelp greenling are often taken by anglers fishing from rocky shores and in private boats in northern California. Increased commercial fishing pressure, combined with a decline in the sport catch of this species, may be an indication of overfishing.

Monkeyface prickleback were included for management under the NFMP because commercial landings are primarily of live fish. They are found in the rocky intertidal zone, which is subject to disturbance by human activity.

Rock greenling are a minor component of the sport and commercial fisheries, and very little information is available on this species. They were included for management under the NFMP because their similarity with kelp greenlings may lead to under reporting of landings for this species.

(Featured Fishes continued on next page)

Reproduction	Predators and Prey	Habitat and Movement
Fertilization and egg development is external. In CA, spawning begins in Oct., peaks in Jan. and continues through Mar.	As juveniles and adults, predators include other cabezon, rockfish, lingcod, seals, sea lions, sea otters and marine birds. As larvae, prey includes the larvae of various crustaceans and larval fish.	Found on hard bottoms in shallow water from intertidal pools to depths of 335 ft. Usually solitary, juveniles and adults can be found on rocky bottoms with dense algae, sitting in holes, on reefs, in pools, or on kelp blades beneath the canopy, but not actively swimming.
Fertilization and egg development is external. Annual spawning migrations occur in late spring and early summer.	As juveniles and adults, prey includes small crabs, fishes, octopi, shrimp and spiny lobster. Scorpionfish are primarily nocturnal and feed at night.	Juveniles and adults are most frequently found on hard bottom (such as rocky reefs, sewer pipes and wrecks) from tidepool depth to 600 ft, but more commonly from 20 to 450 ft. Also found in kelp beds and on sandy or muddy bottoms.
Fertilization and egg development is external. Spawning occurs between July and Sept. Sometimes seen in large schools, which may be spawning aggregations.	As juveniles and adults, predators include giant sea bass, moray eels and harbor seals. As juveniles and adults, prey includes crabs, barnacles, mussels, gastropods, sea urchins, brittle stars, spiny lobster, squid, fish eggs.	Inhabits nearshore rocky reefs, kelp beds and surf grass beds. Seems to prefer areas of high relief, although has been found foraging over sandy bottoms. Primarily residential (stay-athome).
Fertilization and egg development is external. Spawning occurs from Sept. to December.	As juveniles and adults, predators include lingcod, harbor seals and other nearshore predators. As larvae, prey includes fish larvae and eggs, crustaceans and crustacean larvae. As juveniles and adults, prey includes crabs, shrimp, snails, chitons, abalone, octopi, fish and fish eggs, and algae.	Frequents rocky reef areas and under kelp beds. Have been taken from tidepool depths to 150 ft., most common from immediate subtidal to 50 ft. These are generally solitary and territorial fishes. Males and females look so different that at one point they were thought to be separate species.
Fertilization and egg development is external. Spawning occurs from Jan. to May, peaking Feb. to April.	As juveniles and adults, predators include cabezon, rockfish and marine birds. As juveniles and adults, diet varies according to life stage. Early juveniles feed chiefly on copepods and other small crustaceans. Adults prefer various species of red and green algae.	Resides in rocky areas with crevices, including tidepools, jetties and breakwaters. Also lives in subtidal areas including kelp beds. Juveniles are adapted to the upper intertidal zone, and this species has limited air breathing capabilities.
Fertilization and egg development is external. No reproduction information available from CA; spawning in the Aleutian Islands occurs from June through August.	No information available from CA; in the northwest Pacific, prey of juveniles and adults includes crabs and other crustaceans, snails, clams, worms, fish and fish eggs.	Frequents subtidal rocky reefs and kelp beds. Found from intertidal depths to 1950 ft., more commonly less than 300 ft. Considered to be solitary and territorial, although little information is available about movement.

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